

WHAT IS CLAIMED IS:

1. A gaming machine comprising:
 - one or more speakers;
 - a master gaming controller; and
 - a digital sound system comprising:
 - at least one memory unit storing data, wherein said data comprises one or more wave files, one or more sets of wave table data, or both, and
 - a digital signal processor configured to produce audio output for said one or more speakers, wherein said digital signal processor is adapted to perform at least one function selected from the group consisting of generating original audio output and modifying existing sound files.
2. The gaming machine of claim 1, wherein said digital sound system further comprises:
 - an event sequencer interposed between the master gaming controller and the digital signal processor, wherein said event sequencer converts instructions from the master gaming controller to instructions that can be executed by the digital signal processor.
3. The gaming machine of claim 1, wherein said digital signal processor is configured to alter musical or tonal parameters while a sound file is playing.
4. The gaming machine of claim 1, wherein said digital signal processor is configured to synthesize music in real-time.

5. The gaming machine of claim 1, wherein said digital signal processor is configured to provide audio output tailored to a player currently using the gaming machine.
6. The gaming machine of claim 4, wherein said audio output is tailored by at least one or more parameters selected from the group consisting of language selection, gender selection, accent selection, and style selection.
7. The gaming machine of claim 1, wherein said digital signal processor is configured to recognize speech used by a player at or near the gaming machine.
8. The gaming machine of claim 1, wherein said digital sound system further comprises a microphone, as well as speech recognition logic implemented on the digital signal processor.
9. The gaming machine of claim 1, wherein said digital sound system comprises additional memory for storing audio processing algorithms for execution on the digital signal processor.
10. The gaming machine of claim 1, wherein said event sequencer is installed in a manner that prevents the digital signal processor from effecting operation of the master gaming controller.
11. An apparatus comprising:
 - a central processing unit;

a programmable logic device separate from and connected to said central processing unit; and

a digital signal processor adapted to generate and control digital output, said digital signal processor being separate from and connected to said programmable logic device,

wherein said programmable logic device is interposed between said central processing unit and said digital signal processor, such that said digital signal processor is unable to communicate directly to said central processing unit,

and wherein said programmable logic device converts instructions from said central processing unit to instructions that can be executed by said digital signal processor.

12. The apparatus of claim 11, wherein said digital signal processor is adapted to generate and control audio output for one or more speakers.
13. The apparatus of claim 12, wherein said digital signal processor is configured to alter musical or tonal parameters while a sound file is playing.
14. The apparatus of claim 12, wherein the digital signal processor is configured to provide audio output tailored to a current user of the device.
15. The apparatus of claim 11, wherein said programmable logic device comprises an event sequencer.

16. The apparatus of claim 11, wherein said central processing unit comprises a master gaming controller.

17. A method of providing sound in an electronic device, comprising:

- providing a central processing unit;
- providing a programmable logic device separate from and connected to said central processing unit;
- providing a digital signal processor adapted to generate and control audio output for one or more speakers, said digital signal processor being separate from and connected to said programmable logic device;
- interposing said programmable logic device between said central processing unit and said digital signal processor, such that the digital signal processor is unable to communicate directly to the central processing unit; and
- programming said programmable logic device to convert instructions from said central processing unit to instructions that can be executed by said digital signal processor.

18. The method of claim 17, wherein the digital signal processor is configured to provide audio output tailored to a current user of the electronic device.

19. The method of claim 17, wherein said programmable logic device comprises an event sequencer.

20. The method of claim 17, wherein said central processing unit comprises a master gaming controller.